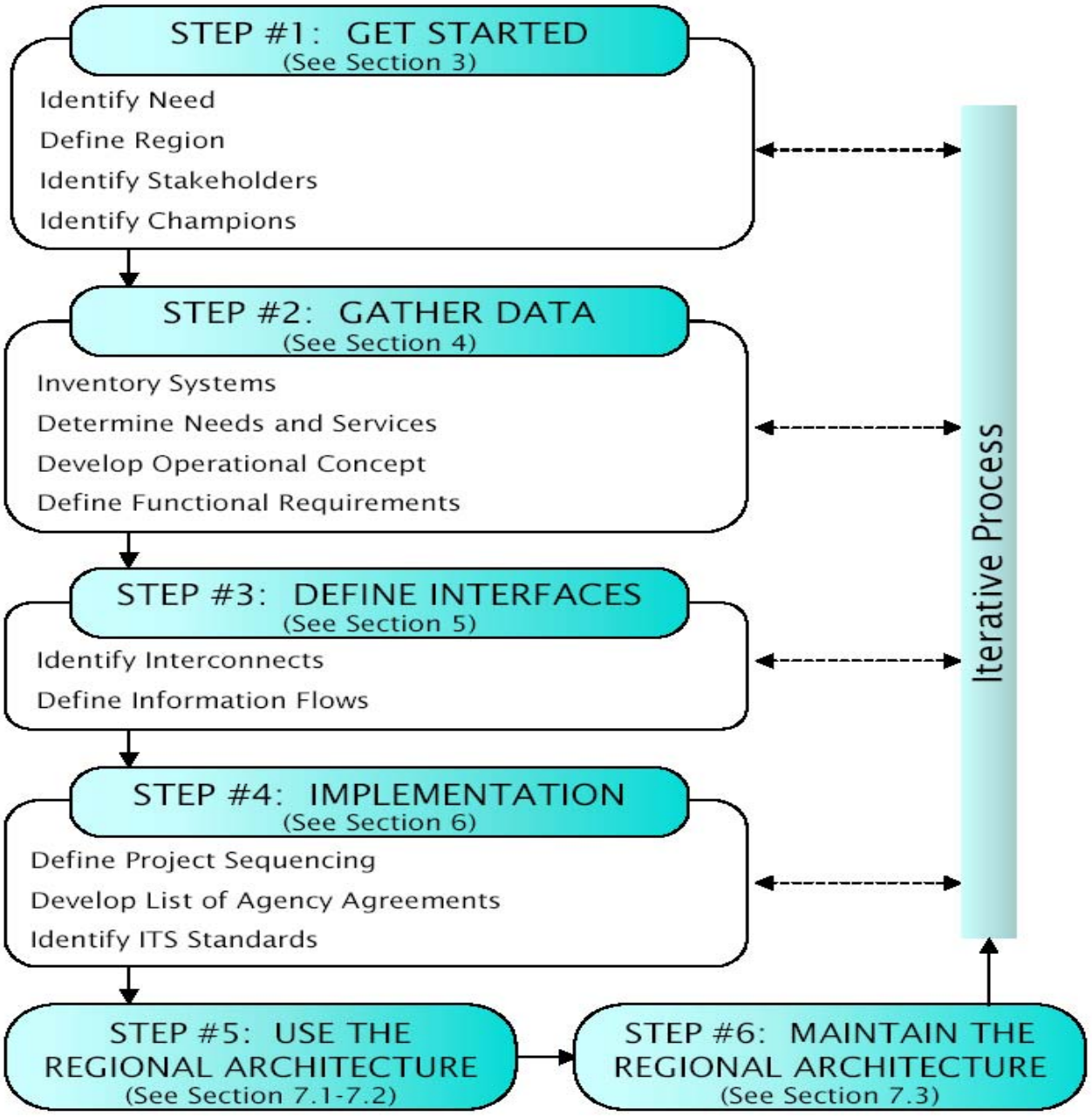
REGIONAL ITS ARCHITECTURE DEVELOPMENT, USE and MAINTENANCE *



** Section references are to "Regional ITS Architecture Guidance", (FHWA/FTA, 2001)."*.

Regional Architecture development, use and maintenance is an iterative process that is structured for continual updating and adjustment for needs and technological improvements.

The Statewide ITS Architecture conforms to the standards of any regional architecture and was designed as such. Major steps shown in the figure were modified slightly to accommodate the scope and complexity of the state level concept.

Get Started: The regional ITS architecture effort begins with a focus on the institutions and people involved. Based on the scope of the region, the relevant stakeholders and one or more champions are identified, the team that will be involved in architecture development is organized, and the overall development effort is planned.

Gather Data: Once the stakeholders are involved and a plan is in place for assembling their input into a consensus regional ITS architecture, the focus shifts to the ITS systems in the region. At this step, the existing and planned ITS systems in the region are inventoried, the roles and responsibilities of each stakeholder in developing, operating, and maintaining these ITS systems are defined, the ITS services that should be provided in the region are identified, and the contribution (in terms of functionality) that each system will make to provide these ITS services is documented.

Define Interfaces: Once the ITS systems in the region are identified and functionally defined, the existing and planned interfaces between these systems are defined. First, the connections (or "Interconnects") between systems are identified, and then the information that will be exchanged on each of the interfaces is defined.

Implementation: Once the system interfaces are defined, additional products can be defined that will guide implementation of the projects that will flow from the regional ITS architecture. These include a sequence of projects, a list of needed agency agreements, and a list of standards that can be considered for project implementation.

Use the Regional ITS Architecture: The real success of the regional ITS architecture effort hinges on effective use of the architecture once it is developed. The regional ITS architecture is an important tool for use in transportation planning and project implementation. It can identify opportunities for making ITS investments in a more cost-effective fashion. This step is where the benefits are realized.

The results of the transportation planning process - the plans and programs - are an important input to the development of a regional ITS architecture. Once a regional ITS architecture is created, it can by used by stakeholders in planning ITS projects to support regional goals. It can be used to maximize appropriate integration of projects identified by the planning process.

For the region's Metropolitan Planning Organization (MPO) and for other area-wide and statewide planning agencies, the regional ITS architecture will provide information for updating both the Transportation Plan and the Transportation Improvement Program (TIP). It will also provide information for use in other planning studies and activities, including the Congestion

Management Plan, Corridor and Sub-Area Studies, performance-monitoring activities, transit development plans, and other locally defined studies or plans.

For statewide planning agencies, it will provide information for updating the Statewide TIP, the State Implementation Plan (SIP), and other statewide or multi-region plans and studies.

Maintain the Regional ITS Architecture: As ITS projects are implemented, new ITS priorities and strategies emerge through the transportation planning process, and the scope of ITS expands and evolves to incorporate new ideas, the regional ITS architecture will need to be updated. A maintenance plan is used to guide controlled updates to the regional ITS architecture baseline so that it continues to accurately reflect the region's existing ITS capabilities and future plans.